REMARKS

Claims 1-17 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Prior Art Figures 1-3 in view of Stewart et al. (U.S. Pat. No. 7,155,133) and further in view of Hoffe et al. (U.S. Pat. No. 6,313,459). This rejection is respectfully traversed.

Claim 1 recites making dark current compensation at different temperature through an A/D converter. Optical receiver modules embodying the claimed invention can overcome the problems in the prior art that dark current alters with environment temperature and that dark current compensation is not so convenient by an analog manner.

The Prior Art Figures 1-3 illustrates conventional analog optical receiver modules that employ a dark current compensation for a detected optical power through "the zero-adjustment resistance RP3", but fail to teach or suggest a dark current compensation through an A/D converter as claimed in claim 1. Stewart also fails to teach or suggest a dark current compensation. Hoffe at best appears directed to a method for calculating APD gain and APD bias voltage by assuming that the APD dark current is small enough and can be ignored (see column 5, lines 39-42). Hoffe also fails to teach or suggest a dark current compensation. Therefore, the Prior Art Figures 1-3, Hoffe, and Stewart,

individually or in combination, fail to teach or suggest the dark current compensation through an A/D converter as recited in claim 1.

Claim 9 recites storing, in the memory, parameters of the optical receiver module including type of the optical receiver module, production date, receiving sensitivity, overload point and maximum bias voltage of the optical detector during test. The Prior Art Figures 1-3, Stewart, and Hoffe, individually or in combination, fail to teach or suggest this element. Optical receiver modules embodying the claimed invention are monitored on-line, so maintenance cost is reduced.

In view of the foregoing, Applicant submits that claim 1 and its dependent claims 2-3 define over the art cited by the Examiner. Likewise, claim 4 and its dependent claims 5-10 define over the art cited by the Examiner.

Claim 11 is directed to an apparatus for optical power detection in an optical receiver module, which is standardized before applied, reciting:

> a voltage output circuit of optical power detection sampling a bias current, converting the bias current to a voltage for indicating optical power, and sending the voltage which is analog;
> an A/D converter receiving the analog voltage, converting the analog voltage into digital data of the analog voltage, and comparing the digital data of the analog voltage with an AD value stored in a memory, and sending a result to a CPU for obtaining the optical power; and
> the memory storing an AD value of an analog voltage, and optical power corresponding to the AD value when the optical power of the apparatus is standardized.

Stewart fails to teach or suggest the detection of the optical power which differs from that of Claim 11. Further, Hoffe fails to teach or suggest an A/D converter "comparing the digital data of the analog voltage with an AD value stored in a memory,

and sending a result to a CPU for obtaining the optical power"; and a memory storing "optical power corresponding to the AD value when the optical power of the apparatus is standardized". Hoffe at best appears to disclose calculating the optical power from the model (the model relating APD gain to APD bias voltage) and determining key constants for use in the model by calibration (see column 4, lines 13-26). In claim 11, if an AD value of the digital data of the analog voltage is found in the memory, the optical power can be obtained without any calculation because an AD value corresponds to optical power in the memory. In Hoffe, the optical power is calculated from the model. As a result, optical receiver modules embodying the claimed invention are more convenient than that in Hoffe. In addition, the standardization in claim 11 of the present application is carried out for each apparatus to determine a corresponding relation between an AD value and optical power which is stored in the memory, while the calibration in Hoffe determines constants of the model relating APD gain to APD bias voltage.

In view of the foregoing, Applicant submits that claim 11 and its dependent claims 12-13 define over the art cited by the Examiner. Likewise, claim 14 and its dependent claims 15-17 define over the art cited by the Examiner.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is

believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0750, under Order No. 9896-000050/US/NP from which the undersigned is authorized to draw.

Dated: December 28, 2007

Respectfully submitted,

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